AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (*Currently Amended*) A circuit for conditioning a power supply having a current-voltage characteristic that is an exponential function for which a graph of the power supplied as a function of the voltage at the terminals of said power supply features a maximum power point, said conditioning circuit comprising:

[[-]] a power cell with one input that is ~~adapted to be~~ supplied with power by said power supply and one output that supplies ~~adapted to supply~~ power to a load, and

[[-]] a control circuit for controlling said power cell via ~~by means of~~ a control signal applied to said power cell to slave the input voltage of said power cell, wherein

~~in which conditioning circuit, the current-voltage characteristic of said power source being an exponential function,~~ said control circuit comprises~~includes~~:

[[-]] calculation means comprising means for receiving instantaneous measurements of points on said current-voltage characteristic and a program that determines said exponential function ~~adapted to determine the equation~~ of said current-voltage characteristic ~~using a predetermined first method~~ on the basis of four points on said current-voltage ~~the~~ characteristic and determines a reference voltage~~to determine said maximum to serve as an operation reference by a second method~~, and

[[-]] control means for supplying said control signal representative of the difference between the ~~required~~ reference voltage calculated by said calculation means ~~module~~ and an ~~the~~ instantaneous voltage at the output of the power supply so as to cancel out said control signal.

2. (*Currently Amended*) The circuit claimed in claim 1 wherein, said current-voltage characteristic of said power supply being of the form:

$$i = i_{SC} - i_R(\exp(av) - 1),$$

said calculation means determines ~~first method is adapted to determine~~ the parameters of the above equation from the following equations:

$$a = \frac{1}{v_1 - v_2} Log(\frac{di_1}{di_2}\frac{dv_2}{dv_1})$$

$$i_R = -\frac{di}{dv}\frac{1}{a\exp(av)}$$

$$i_{SC} = i - i_R(\exp(av) - 1).$$

3. (*Currently Amended*) The circuit claimed in claim 1 wherein said calculation means determines said reference voltage using ~~second method adapted to determine said maximum uses~~ the Newton-Raphson method applied to said exponential function ~~the equation~~ of said current-voltage characteristic.

4. (*Currently Amended*) The circuit claimed in claim 1, further comprising ~~including~~ a current sensor that measures an ~~adapted to supply the~~ instantaneous current in a regular manner and wherein said calculation means launches ~~module is adapted to launch~~ said program when a ~~as soon as the~~ current variation between the instantaneous current and a ~~the~~ maximum power point current exceeds a ~~the~~ predetermined threshold.

5. (*Currently Amended*) The circuit claimed in claim 1, wherein said control circuit comprises ~~includes~~ an adder for comparing the instantaneous voltage at the output of said power supply and the reference voltage generated by said calculation means, said adder delivering at its output a signal representative of the difference between the latter magnitudes at the input of said control means.

6. (*Currently Amended*) A solar generator comprising a power supply for which a graph of the power supplied as a function of the voltage at the terminals of said power supply features a maximum power point, wherein said ~~which~~ solar generator is adapted to be conditioned by the circuit claimed in claim 1.

7. (*Currently Amended*) A method of using a conditioning circuit to condition a power supply having a current-voltage characteristic that is an exponential function for which a graph of the power supplied as a function of the voltage at the terminals of said power supply features a maximum power point, said conditioning circuit comprising:

[[-]] a power cell with one input that is ~~adapted to be~~ supplied with power by said power supply and one output that supplies ~~adapted to supply~~ power to a load, and

[[-]] a control circuit for controlling said power cell via ~~by means of~~ a control signal applied to said power cell to slave the input voltage of said power cell, wherein said

~~which~~ conditioning method comprises~~includes, the current-voltage characteristic of said power source being an exponential function~~:

[[-]] a step of determining said exponential function ~~the equation~~ of said current-voltage characteristic using ~~a predetermined first method and~~ four points on said current-voltage characteristic,

[[-]] a step of determining a reference voltage~~using a second method to determine said maximum to serve as an operation reference~~, and

[[-]] a step of transmitting said control signal representative of the difference between the calculated reference voltage and an ~~the~~ instantaneous voltage at the output of said power supply so ~~in such a manner~~ as to cancel out said control signal.

8. (*Currently Amended*) The method claimed in claim 7 wherein, said current-voltage characteristic of said power supply being of the form:

$$i = i_{SC} - i_R(\exp(av) - 1),$$

wherein ~~said first method is adapted to determine~~ the parameters of the above equation are determined from the following equations:

$$a = \frac{1}{v_1 - v_2} Log(\frac{di_1}{di_2}\frac{dv_2}{dv_1})$$

$$i_R = -\frac{di}{dv}\frac{1}{a\exp(av)}$$

$$i_{SC} = i - i_R(\exp(av) - 1).$$

9. (*Currently Amended*) The method claimed in claim 7 wherein said determination of said reference voltage ~~second method adapted to determine said maximum~~ uses the Newton-Raphson method applied to said exponential function ~~the equation~~ of said current-voltage characteristic.

10. (*Currently Amended*) The method claimed in claim 7 wherein[[,]] said conditioning circuit further comprises ~~including~~ a current sensor that measures an ~~adapted to supply the~~ instantaneous current in a regular manner, wherein said method determines said exponential function and said reference voltage ~~launches said program~~ as soon as a ~~the~~ current variation between said instantaneous current and said current corresponding to said maximum power point exceeds a predetermined threshold.

11. (*Currently Amended*) The method claimed in claim 7, wherein said method ~~program~~ uses four points on said current-voltage characteristic, one of which is said maximum power point, and the other three points being obtained by application of successive voltage levels at the output of said power cell ~~calculation means~~ and by sensing corresponding currents.